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-	.*	Www. Weller	
-	Α.	WIRE ENGINEERING SECTION	
	in :	1. <u>Langley Signal Center 5/10 Year Planning</u> - No change status.	
		2. <u>CIFAX</u>	
		a. The auto-sync units should be delivered in early August.	
		b. The Xerox Data Converters have been modified to provide auto-sync alarm control on loss-of-sync only.	
-	Sys The 1 A	3. KY-3 Call Director System has been awarded the contract for 50 Call Director tems. All GFE items have been shipped to the contractor. pre-production model should be delivered on approximately ugust. The remaining 49 units will be delivered in partial oments within a 120 day period.	25X1A5A1
	duc.	4. has received initial deliveries of Tally ders and punches. Preliminary RFI tests are being conted on punches and readers to pinpoint countermeasures olems.	
25		5. MAX-II - has begun work on MAX-II. The first rdination meeting will be held August 2 and 3 at which the Project Engineering Plan will be reviewed.	
	are	6. <u>COINS</u> - Signal Center layout and patching requirements being prepared.	
		7. 360 Remotes	
_	25X1A5A	a. The Telco has been contacted to see if they can provide complete "BLACK" interface between crypto and Telco service. If possible, this will eliminate the between our crypto and Telco.	
_	25X1A5A1	b. will supply all equipment at OCS computor area to interface to our crypto equipment. All we require on the red side is to connect to their signal and control lines. No OC-E interface equipment is required on the "Red" side.	
	25X1A5A1	c. A trip was made to to discuss RFI problems. The general observation to be made is that has evidently expended more talent and money in FS-222 projects than other computer manufacturers, but with no more end results.	25X ⁻
			427

25X1

Station Clock - Investigations still under way.

9. Data Systems

- a. Langley Signal Center Voice/Data Circuit Patch Facility No change in status.
- b. A very limited test utilizing a Rixon SEBIT 36 modem through the KY-3 (758C) switch to determine the feasibility of a 758C data switching system was conducted. The results of this test were encouraging and arrangements are being made to determine long term data errors that may be introduced by the 758C switching action during data transmission.
- 10. KY-3/NSA Gray Phone Interconnection NSA measured the cross-talk in their gray phone switch and "unofficially" found the switch and associated cabling met the NSA red switch cross-talk specification. The KY-3/NSA switch interface requirements are now being defined in detail in order to build a suitable interface.
- 11. High Density R-100 Unit (HD-R-100) Approval for installation at Langley was received from $\overline{\text{OC}}\text{-S}$. Procurement action is underway.
- 12. Revised CSR-5 Manual The CSR-5 manual has been revised and placed in stock.

13. New KW-7 Safe - Class 5

a. Preliminary steps have been taken to modify a Class 5 safe for use with the KW-7 TWX and field station installations. The reason for the change from the Class 25X1A5A1 to Class 5 is physical security. After the prototype (being modified by has been approved, thirty-nine additional units will be procured and equipped with the new CP-12.

- b. <u>KW-7 Power Filter FI-24</u> This unit is designed to filter the AC power supplied to the ASR's and KW-7's utilized in TWX installations. Thirty units have been completed by the contractor and are being shipped to warehouse stock under federal stock number 5915-H02-2571.
- c. KW-7 TWX Back to Back Adaptor This unit was designed for testing two KW-7's "back to back" by bypassing the TWX equipment. Thirty-five units have been fabricated by Airtronics Inc. and are presently being placed into stock under federal stock number 5935-H02-2570.

- 14. CSR-4 Suggested changes have been sent to one area for field testing. If acceptable for increased reliability, an MWO will be issued.
- 15. R20 () Keyer Four modified units have been sent to OC-SP for testing. The modifications involved are an effort to reduce/negate cleaning of numbering module stepping switches.
- 16. Flexowriter Replacement The Federal Standard 222 version of the Model 28/37 machine is expected to be delivered during the latter part of September.
 - 17. $\underline{HW-28}$ No change in status.
- 18. BCS Catalog (Teletype Equipment) Additional equipment sheets are being prepared and will be sent to all holders upon completion.

25X1A5A1

- 19. Shielded Enclosure Signal Line Filter
 Replacement Preliminary drawings are being completed for an optical replacement for the present passive filter
 boxes. The new box will utilize the same high density R-100 components as will be used in future signal centers.
- 20. Automatic Message Numbering & Tandem Operation System "AMNTOS" This project was held up due to "end of the year poverty." However, the specifications are now in the hands of several contractors and the results of their bids will be reported next month.
- 21. Light Operated Relay Test R70 & R80 Two circuits of a six circuit receive cabinet were modified to standard factory wiring. A modified base adaptor, R-70 open circuit detector and an R-80 relay were plugged in in place of the normal RY-30 mechanical type relay. This combination has been working satisfactorily for approximately one week. The test will continue for an additional week.

The four remaining circuits had previously been modified to operate using a Stelma ER-17 relay. The ER-17's were removed and directly replaced with an R-80 with no modifications. These four circuits have also been operating satisfactorily for approximately one week. This test is in an effort toward "standardization".

22. Control Panel - CP-12 - This control panel is designed to replace both the CP-10 and the CP/A-10. In addition to being used in the TWX and field station KW-7 safe installations, the new design may be mounted in a standard 19" rack. One prototype will be made under a task order and the remaining forty-nine units will be subject to competitive bid.

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- 23. AC Operated Distortion Measuring Set AC/DMS-1A-1 Fifty Distortion Measuring Sets (DMS-1A-1) will be removed from stock and modified from battery operation to AC operation and repackaged in a slightly larger case. After modification, all units will be returned to stock under a new federal stock number.
- 24. Full Duplex Single Channel KG-13/TTY Feasibility studies have been completed. A "back-to-back" configuration will be installed in the Ames Building to determine reliability. The hardware cost per terminal will be approximately \$12,000.00 including the KG-13.

	25.	CU-22	Auto-Sync	Units	-	In	process	of	being	debugged
25X1A5A1 at				Del	iver	у (expected	ea:	rly Au	gust.

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_		9. Equipment
	25X1A5A1	a. Arrangements were made to ship a Gates HFL-3000 3 KW Linear Amplifier and a Gates SG-70 RF exciter to who will evaluate components operation with consideration for field conditions.
		b. A systems evaluation of "Shot-gun" MUX, as we are using it, will also be performed by Equipment 25X1A5A1 requisitioning is in process.
		c. Procurement of an improved remotely-controlled 1 KW antenna tuner, to replace the present standard TMC ATS-2-50 unit, has been initiated. The specifications were written from proposals offered by for their 25X1A5A1 HFAS-9 unit, which features pre-set frequency tuning utilizing plug-in cards and provisions for a dummy load. An initial quantity of 25 was requested for field evaluation.
		d. Requisition for procuring two Gates SG-75 (multimode) exciters was prepared and an R&D Laboratory evaluation of the unit has been requested. The first SG-75 due in latter July will be two or three weeks late in arriving due to plant holiday shutdown.
		e. A quantity of TS-10 test sets and AU-11 attenuator units has been requisitioned for shipment to field stations; these provide a method of evaluating and maintaining recognition modules of the CU-10.
	whi	10. <u>Technical Bulletin</u> - An Engineering Technical Bulletin ch describes repair of RF arc over damage in Collins 208U-10 lifiers has been prepared.
		11. <u>Tri-Services Receiver</u> - 25X1A5A1 keting an inexpensive strip-receiver for RTTY operation in
	con, cir men equ:	junction with their Model 1200 converter on fixed frequency cuits. A frequency synthesizer is being designed to complet the receiver. One of the prototype units, if satisfactorily ipped with synthesizer, will be made available for R&D Lab luation.
	eva.	120 100 Watt CW Transmitter - has designed
_	trai with brea "ex-	elf-contained transistorized (except a 7094 final tube) 2-32 mc nsmitter which produces 100 watts output. The unit is provided a build-in 120/240 volt power supply featuring circuit aker protection and an antenna tuner capable of matching tremely wide" load impedances in conjunction with a multier. A six position crystal switch and a VFO (to follow)
_	\	De have watched this evalue with great interest.

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	provides frequency control. The proposal states the equipment will sell between 1,500 and 2,000 dollars based on sale of at							
	теа	st 100 units. Effo luation.	rt wil	l be made	to obtain one u	nit for		
-	D.	ADMINISTRATIVE						
		EOD						
- 25X1A	A9A			Area Engi	ineering Section	n		
_		Transfers	Fro	<u>om</u>	<u>To</u>			
_ 25X1A	\9A			B/LTS B/WES	ESB/RESS ESB/AES R&D/Lab	25X1A6I		
		Promotions	<u>Ef</u> 1	Cective				
 25X1A9A			17	July 1966 July 1966 July 1966				
		E. ATTACHMENT						
		TDY Report						